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# ***Program and Abstracts***



**U-Pb detrital and metamorphic zircon ages of paragneisses from Rondônia (Brazil), SW margin of the Amazonian Craton: passive continental margin basin sedimentation related to the evolution of the Rondonian-San Ignacio Province**

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We present LA-ICP-MS U-Pb ages of detrital and metamorphic zircons from three migmatitic paragneisses related to the Rondonian-San Ignacio province in the central region of Rondônia state (Brazil). The detrital zircon ages are mainly grouped between 1.76 and 1.71 Ga, 1.64 and 1.61 Ga, 1.58 and 1.53 Ga, and 1.52 and 1.47 Ga. These ages indicate that major zircon sources are the Paleoproterozoic Jamari Complex, and the Mesoproterozoic Serra da Providência and Rio Crespo intrusive suites (Rio Negro-Juruena crust). The Bom Futuro mine, L-95, and Quatro Cachoeiras paragneisses show similar maximum depositional ages of 1.53 Ga, 1.54 Ga, and 1.50 Ga, respectively. Metamorphic rounded zircons at the age of 1.34 Ga predominate in the Quatro Cachoeiras paragneiss, interpreted as the deformation, high-grade metamorphism and partial melting associated to the collisional stage of the Rondonian-San Ignacio orogeny and represent the minimum depositional age of the sedimentary protholiths. These rocks were previously included in the Quatro Cachoeiras Metamorphic Suite, with depositional age between 1.66 to 1.59 Ga, based on geochronological data of paragneisses from the northeast Rondônia (Machadinho paragneiss). Based on similarities between age spectra and depositional age constraints, we suggest a correlation between these rocks with the metasediments and paragneisses from the Igarapé Lourdes Formation (<1.55 Ga), Nova Mamoré Metamorphic Suite (1.53 to 1.34 Ga), Buritis Paragneiss (1.48 to 1.32 Ga), in the north-central region of Rondônia, Colorado Complex (1.42 to 1.34 Ga) in the southeast Rondônia (Alto Guaporé belt), and toward the southeast in the Mato Grosso state, the undeformed Salto do Céu/Rio Branco sedimentary sequence (1.54 and 1.44 Ga), in the Jauru terrane. The distribution of these supracrustal rocks implies a widespread passive continental basin sedimentation in the south margin of the proto-Amazonian Craton during the Calymmian and Ectasian periods.